

DENR USE ONLY: ☒ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No )

Doc/Event #:

NC DENR  
Division of Waste Management - Solid WasteEnvironmental Monitoring  
Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

## Instructions:

- Prepare one form for each individually monitored unit.
- Please type or print legibly.
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i)).
- In accordance with NC General Statutes Chapter 89C and 89E and NC Solid Waste Management Rules 15A NCAC 13B, be sure to affix a seal to the bottom of this page, when applicable.
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

## Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Carlson Environmental Consultants, PC

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Jeff McNabb Phone: 704-202-5199

E-mail: jmcnabbCMI@AOL.com

Facility name:

Facility Address:

Facility Permit #

NC Landfill Rule:  
(.0500 or .1600)Actual sampling dates (e.g.,  
October 20-24, 2006)

JMN Landfill

345 Roseborough Rd.  
Grover, NC 28073

23-02

.1600

9/19/08  
9/21/08

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☒ Detection Monitoring ☐ Assessment Monitoring ☐ Corrective Action

Type of data submitted: (Check all that apply)

<input type="checkbox"/> Groundwater monitoring data from monitoring wells	<input checked="" type="checkbox"/> Methane gas monitoring data
<input type="checkbox"/> Groundwater monitoring data from private water supply wells	<input type="checkbox"/> Corrective action data (specify) _____
<input type="checkbox"/> Leachate monitoring data	<input type="checkbox"/> Other(specify) _____
<input type="checkbox"/> Surface water monitoring data	

Notification attached?

- ☐ No. No groundwater or surface water standards were exceeded.
- ☐ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
- ☒ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

## Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Facility Representative Name (Print)

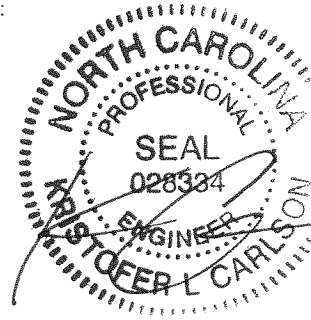
Title

(Area Code) Telephone Number

Signature

Date

Affix NC Licensed/ Professional Geologist/Engineer Seal here:





September 29, 2008

Department of Environment and Natural Resources  
Division of Waste Management  
Solid Waste Section  
401 Oberlin Road, Suite 150  
Raleigh, North Carolina 27605  
919-508-8520

Attention: Mr. Ervin Lane  
NCDENR - Hydrogeologist  
Raleigh Central Office

***Re: JMN Landfill, Cleveland County, North Carolina***  
***Quarterly Methane Boundary Probe Monitoring***

Dear Mr. Lane,

Republic Services of North Carolina, LLC (Republic) is reporting an exceedance of the concentration of methane gas, above the lower explosive limits. I have also placed a call and left a voice message for Charles Gerstell in your Mooresville Regional Office.

The monitoring event at the above-referenced facility was performed on September 19<sup>th</sup>, 2008 and rechecked on September 21, 2008. The probes in question are #3 and #4 which are not immediately adjacent to any offsite structures. All other probes on site had zero percent methane readings.

Methane probe #3 was first monitored on September 19<sup>th</sup>, 2008 at 4:20 pm with an initial methane concentration of 20.4% or 100% LEL. It was rechecked at 6:18 pm with a methane concentration of 0.0%.

Methane probe #4 was first monitored on September 19<sup>th</sup>, 2008 at 4:38 pm with an initial methane concentration of 7.5% or 100% LEL. It was rechecked at 6:20 pm with a methane concentration of 0.0%

Both probes were rechecked on September 21, 2008 with probe #3 having a methane concentration of 0.1% or 1% LEL and probe #4 having a methane concentration of 4.2% or 81% LEL.

These probes are located on the west side of the disposal facility, inside the chain link fence and adjacent to Roseborough Road. Probes were drilled to a depth of 15 feet. It is estimated that these probes are within 50 feet of the edge of waste.

Our closure permit letter directs us to follow post closure monitoring requirements of Rule .0503(2)(a) which only states that the facility shall not exceed the lower explosive limits (LEL) at the property boundary. We feel that Rule .1626 (4)(c) provides sufficient guidance for situations in which the LEL is exceeded and request to be allowed to follow this direction.

Please consider this letter as our seven day notification along with our reporting of the methane levels detected as mentioned on the previous page.

If acceptable to the Division, within 60 days we will install an interceptor trench, roughly 300 feet in length, 15-20 feet in depth and 3-5 feet in width. We will backfill this trench with either rock or tire chips along with a 4-inch perforated pipe for gas collection. This 4-inch pipe will be brought to the surface in 2 or 3 locations and allowed to vent. The backside and top of this trench may be lined with left over, 60-mil liner from our Foothills facility prior to backfilling to act as a solid barrier to prevent gas migration. We can begin this project as early as next week with your approval.

In addition, we will increase our monitoring frequency on these probes from a quarterly basis to monthly until we achieve two consecutive months of zero percent methane readings on Probes #3 and #4.

Please forward this request to your internal departments for approval. If you have any questions, please contact me at 828-695-2055.

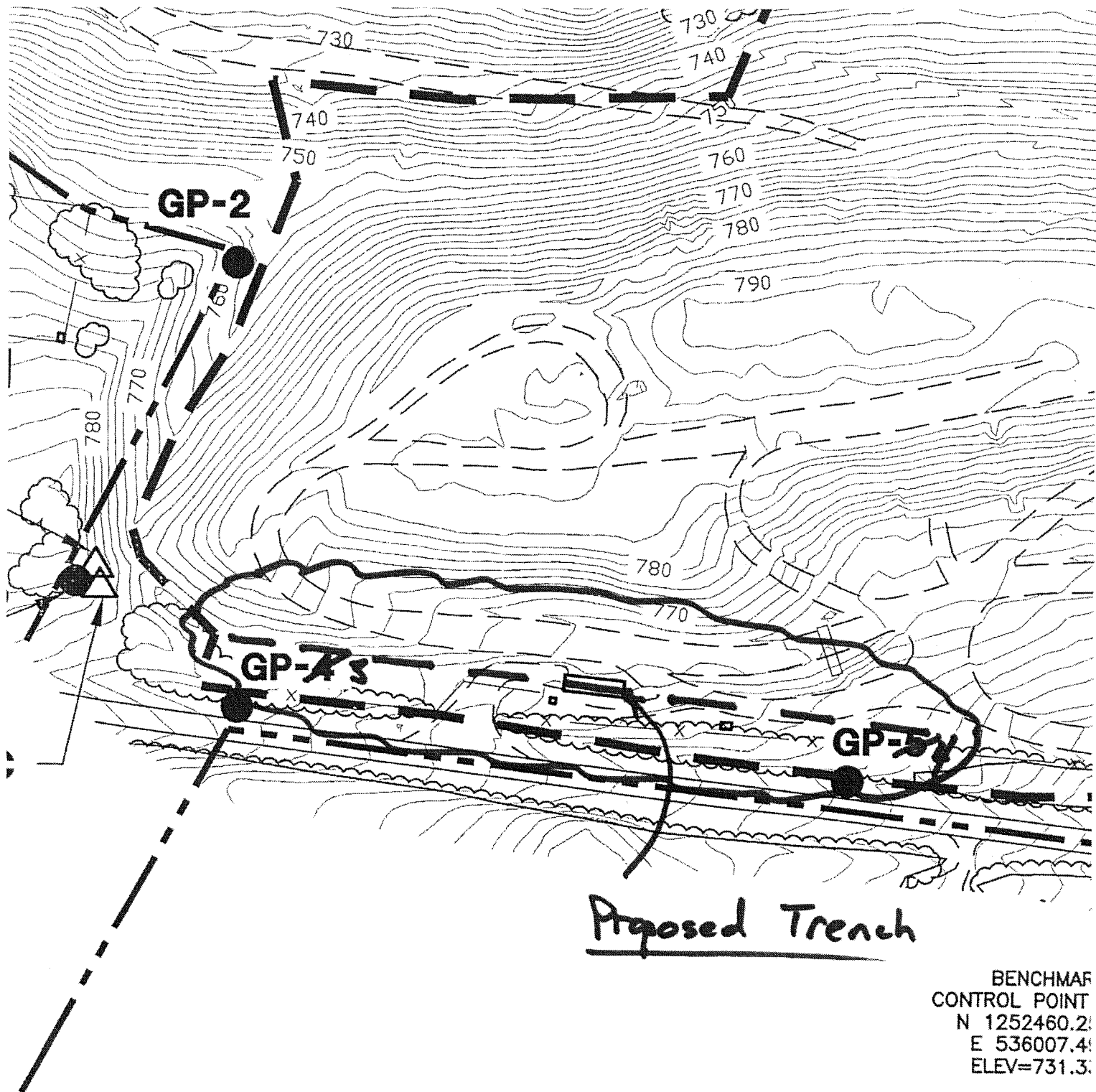
Sincerely,  
**REPUBLIC SERVICES OF NC, LLC**



Mr. Raymond J. Hoffman, P.E.  
Area Engineer

Enclosure

C: Charles Gerstell, NCDENR  
Drew Isenhour, Area President, Republic  
Tim Allen, General Manager, JMN Landfill  
Kris Carlson, P.E., Carlson Environmental



**NOTE:**

AERIAL TARGET NO. 1 (4'X4' CONCRETE PANEL) IS NOT SHOWN ON THIS SHEET. IT IS LOCATED AT THE FOLLOWING COORDINATES:

N 1251444.150

E 533665.540

ELEV=604.310

N



North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor

William G. Ross Jr., Secretary

FACILITY PERMIT NO: 23-02

Closure of INDUSTRIAL LANDFILL Unit

Date: 26 September, 2005

STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES  
DIVISION OF WASTE MANAGEMENT  
1646 MAIL SERVICE CENTER, RALEIGH, N.C. 27699-1646

**INDUSTRIAL SOLID WASTE LANDFILL  
FACILITY**

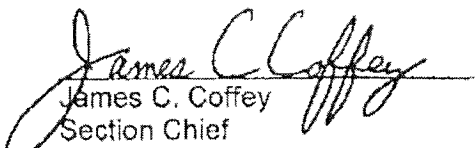
Republic Services of North Carolina, LLC, LANDOWNER

is hereby issued a

**LETTER OF CLOSURE**

for the JMN Landfill  
UNLINED INDUSTRIAL LANDFILL UNIT  
located on property recorded in # DEED BOOK: 14H PAGE: 701

located at 346 Roseborough Road in Grover, North Carolina in accordance  
with Article 9, Chapter 130A, of the General Statutes of North Carolina and all rules  
promulgated thereunder and subject to the conditions set forth in this letter of closure.

  
James C. Coffey  
Section Chief  
Solid Waste Section  
Division of Waste Management

1646 Mail Service Center, Raleigh, North Carolina 27699-1646  
Phone 919-733-4996 \ FAX 919-715-3605 \ Internet <http://wastenotnc.org>

An Equal Opportunity / Affirmative Action Employer - Printed on Dual Purpose Recycled Paper

**POST CLOSURE CONDITIONS**

1. **MANAGEMENT OF LANDFILL GAS:** The owner and/or operator shall take the measures necessary to ensure that the closed site shall continue to meet the design standards for landfill gas found in Rule .0503(2)(a).
2. **MANAGEMENT OF SURFACE WATER:** The owner and/or operator shall take the measures necessary to ensure that the closed site shall meet the requirements of Rule .0503(2)(c). In addition, the landfill unit shall be maintained such that surface water runoff occurs in a controlled manner, and surface water shall not be impounded over waste.
3. **AIR QUALITY:** The owner/operator shall ensure that landfill units do not violate any applicable requirements developed under a State Implementation Plan approved or promulgated by the U.S. EPA Administrator pursuant to Section 110 of the Clean Air Act, as amended.
4. **FINAL COVER SYSTEM:** The integrity and effectiveness of the final cover system and any permanent erosion control devices must be maintained. This could include making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events.
5. **PROPOSED USES:** The owner/operator shall submit a proposal for the Section's review and approval addressing post closure uses of the facility. Proposed post closure uses shall not violate any post closure conditions found in this letter. In particular, plans for post closure uses shall avoid possibilities for the entrapment of methane gas. Routine landfill gas monitoring within structures and at the facility boundary may not be sufficient to detect potentially dangerous situations.
6. **ONGOING SOLID WASTE MANAGEMENT ACTIVITIES:** Continuing solid waste management activities shall not violate any post closure conditions found in this letter, and must meet any other applicable requirements.
7. **RECORDATION:** The owner/operator shall ensure that the recordation requirements for land disposal sites found in Rule .0204 are met. Following closure of the unlined Industrial Landfill unit, the owner or operator shall record a notation on the deed to the landfill facility property, or some other instrument that is normally examined during title search, and notify the Division that the notation has been recorded and a copy has been placed in the operating record.

The notation on the deed shall in perpetuity notify any potential purchaser of the property that:

- (a) The property has a unlined landfill unit; and
- (b) Its use is restricted under the closure plan approved by the Division.

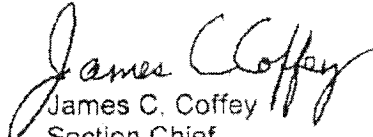
The attached certified copy of the closure letter shall be recorded by the Register of Deeds and indexed in the grantor index under the name of the landowner. The certified copy affixed with the Register's seal and the date, book, and page number of the recording shall be returned to the Solid Waste Section.

**8. WATER QUALITY MONITORING AND REPORTING REQUIREMENTS:**

- a. Groundwater quality at this facility is subject to the "Classification and Water Quality Standards Applicable to the Groundwater's of North Carolina," 15A NCAC 2L. This includes, but is not limited to, the provisions for detection monitoring, assessment, and corrective action.
- b. The permittee shall sample the detection monitoring wells and surface water sampling location(s) at a minimum on a semi-annual basis.
- c. Water quality detection monitoring shall continue for a minimum of five years from the date of the engineer's certification, indicating that the facility is closed. After five years the Sections will determine if further monitoring is to be required.
- d. Sampling equipment and methods shall conform to specifications in Attachment 1, "North Carolina Water Quality Monitoring Guidance Document for Solid Waste Facilities." The sampling parameters and methods shall be those found in Attachment 2, "Sampling and Analysis Requirements for Construction and Demolition Landfills and Closed Sanitary Landfills", or an alternate list of sampling parameters as approved by the Solid Waste Section.
- e. The permittee shall maintain a record of all monitoring events and analytical data. Reports of the sampling events and analytical data shall be submitted to the Section in a timely manner.

**CERTIFIED COPY OF CLOSURE LETTER**

I do hereby certify that the attached CLOSURE LETTER is an exact and true copy of the closure letter for the JMN Landfill, Unlined Landfill Unit, Permit Number 23-02.

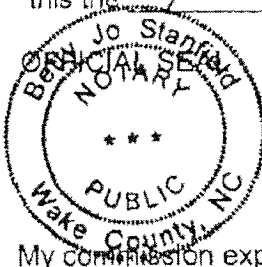
  
James C. Coffey  
Section Chief  
Solid Waste Section  
Division of Waste Management

Wake County, North Carolina

I, Betty Jo STANFIELD, Notary Public for said County and State, do hereby certify that JAMES C. COFFEY, of the Solid Waste Section, personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and official seal,

this the 4 day of OCTOBER, 2005



  
NOTARY PUBLIC

My commission expires DECEMBER 29, ~~2005~~ 2009

**Note to Register of Deeds:** The certified copy of the closure letter shall be recorded by the Register of Deeds and indexed in the grantor index under the name of the land owner. The certified copy affixed with the Register's seal and the date, book, and page number of the recording shall be returned to Donald J. Barber, Division of Waste Management, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.